
Targeting progenitors in scar tissue to reduce chronic scar burden

Grant Award Details

Targeting progenitors in scar tissue to reduce chronic scar burden

Grant Type: Inception - Discovery Stage Research Projects

Grant Number: DISC1-08790

Project Objective: To test a novel therapeutic strategy for reducing chronic scar burden by targeting progenitors in scar tissue that replenish cellular and matrix components of scar tissue.

Investigator:

Name:	Arjun Deb
Institution:	University of California, Los Angeles
Type:	PI

Disease Focus: Heart Disease

Human Stem Cell Use: Other

Award Value: \$230,400

Status: Closed

Progress Reports

Reporting Period: Year 2

[View Report](#)

Grant Application Details

Application Title: Targeting progenitors in scar tissue to reduce chronic scar burden

Public Abstract:**Research Objective**

Develop novel strategies to treat heart scars by targeting progenitors that replenish scars

Impact

There currently is no therapy for treating scar tissue in the heart or any other organ. Our proposal would lead to the development of targeted approaches to reduce scar burden.

Major Proposed Activities

- Identify progenitors in scar tissue (murine and human) that have the ability to self renew and replenish scars
- Determine dynamics of scar replenishment by scar progenitors
- Antigenic and functional characterization of progenitors in human and murine scar tissue
- Creating monoclonal antibodies to target scar progenitors
- To determine whether monoclonal antibodies can be used in vivo to target progenitors in scar to disrupt scar replenishment and reduce chronic scar burden

Statement of Benefit to California:

Every 30 seconds, someone in the United States including California suffers a heart attack and lost heart muscle is replaced by scar tissue. Scar tissue is irreversible and an independent predictor of mortality in patients with heart disease. Currently no therapies exist to reverse or retard scarring. In this proposal, we outline a novel therapeutic strategy to decrease chronic scar burden in the heart by targeting progenitor cells in scar tissue that self renew and replenish heart scars.

Source URL: <https://www.cirm.ca.gov/our-progress/awards/targeting-progenitors-scar-tissue-reduce-chronic-scar-burden>